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Jong-Han Kim

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THE FARRELL LAW FIRM, P.C.

333 EARLE OVINGTON BOULEVARD

SUITE 701

UNIONDALE, NY 11553

EXAMINER

HAN, CLEMENCE S

ART UNIT

PAPER NUMBER

2616

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/052,097

Applicant(s)

KIM ET AL.

Examiner

CLEMENCE HAN

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date 04/09/2008

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “DRQ message”, “ACK message” and “detection ACK signal” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification. The applicant amended the claim to recite DRQ where "DRQ information" were previously recited (and which had replaced "reverse signal", "data rate" and "data rate request" as originally filed). The examiner agrees that these amendments more clearly recite the subject matter. However, without the similar corrections made to the specification, it is unclear which different terms are used to describe the same message/signal. For example, the specification recites "reverse DRQ access" in page 14 line 28 and Figure 7 shows the mobile transmitting "DRQ". It is unclear whether they are used to describe the same signal or whether they are different signals from each other.

Claim Objections

3. Claim 4 and 13-15 are objected to because of the following informalities: The claims has a limitation of "transmitting ACK message in response to a detection ACK signal of the DRQ message", for example claim 4 line 2. It is unclear which signal from the specification and the drawing matches with "a detection ACK signal" in the limitation. The specification teaches "transmitting ACK message upon detecting the reverse signal", page 12 line 14-18. The drawing teaches transmitting "ACK for DRQ(-1)" after "Reverse DRQ Access Detection" (see Figure 7). It is only one example

showing the discrepancy between the claim, the specification and the drawing.
Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claim 1-13, 16-20, 23 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Rezaiifar et al. (US Pub. 2003/0002464).

Regarding to claim 1, Rezaiifar teaches a base station apparatus 4 in a mobile communication system supporting packet data transmission, comprising: a controller for generating a data rate request (DRQ) message for requesting transmission of DRQ to a mobile station, when there is a packet to transmit in a state where there is no data communication between the base station 4 and a mobile station 6 [0119] (see Figure 9B); and a channel transmitter for transmitting the data rate request message generated from the controller to the mobile station [0119] (see Figure 9B), wherein the DRQ indicates a forward data rate desired in the mobile station [0019], [0119].

Regarding to claim 2, Rezaiifar teaches the DRQ message is comprised of a prescribed number of identical power control bits [0069].

Regarding to claim 3, Rezaiifar teaches the channel transmitter includes a shared power control channel (SPCCH) transmitter for transmitting a power control bit for controlling transmission power of the mobile station [0069].

Regarding to claim 4, Rezaiifar teaches the controller provides the channel transmitter with an ACK (Acknowledgment) message in response to a detection ACK signal of the DRQ message from the mobile station [0119] (see Figure 9B).

Regarding to claim 5, Rezaiifar teaches the ACK message is comprised of a prescribed number of identical power control bits [0069].

Regarding to claim 6, Rezaiifar teaches the controller provides the channel transmitter with a power control bit for controlling transmission power of the mobile station, after transmitting the ACK message [0069].

Regarding to claim 7, Rezaiifar teaches a mobile station apparatus in a mobile communication system supporting packet data transmission, comprising: a gating signal generator for generating a gating signal for gating on/off data rate request (DRQ) transmitted to a base station after completion of packet data communication, and generating a gating signal for immediately resuming transmission of the DRQ upon receipt of a DRQ message for requesting transmission of the DRQ from the base station in a state where there is no data communication with the base station [0119] (see Figure 8B and 9B); a controller for gating on/off the DRQ according to the gating signal from the gating signal generator [0119] (see Figure 8B and 9B); and a transmitter for gating transmission of the DRQ transmitted to the base station according to a control signal from the controller [0119] (see Figure 9B), wherein the DRQ indicates a forward data rate desired in the mobile station [0019], [0119].

Regarding to claim 8, Rezaiifar teaches the controller provides the transmitter with a power control signal for the DRQ so as to increase transmission power of the DRQ little by little from predetermined initial access power, upon resuming transmission of the DRQ [0069].

Regarding to claim 9, Rezaiifar teaches the controller provides the transmitter with a power control signal for the DRQ so as to control transmission power of the DRQ according to a power control bit received from the base station, after receipt of an ACK message responsive to transmission of the DRQ [0069].

Regarding to claim 10, Rezaiifar teaches the DRQ message is comprised of a prescribed number of identical power control bits [0069].

Regarding to claim 11, Rezaiifar teaches the ACK message is comprised of a prescribed number of identical power control bits [0069].

Regarding to claim 12, Rezaiifar teaches the DRQ message and the ACK message are received over a forward shared power control channel (SPCCH) [0069].

Regarding to claim 13, Rezaiifar teaches packet data transmission method of a base station in a state where there is no data communication between the base station and a mobile station, comprising the steps of: transmitting a data rate request (DRQ) message to the mobile station to transmit the packet data [0119] (see Figure 9B); transmitting an ACK (ACKnowledgement) message to the mobile station for a prescribed time period in response to a detection ACK signal of the DRQ message from the mobile station [0119]

(see Figure 9B); and transmitting the packet data along with a power control signal after transmitting the ACK message [0119] (see Figure 9B).

Regarding to claim 16, Rezaiifar teaches the DRQ message is comprised of a prescribed number of identical power control bits [0069].

Regarding to claim 17, Rezaiifar teaches the ACK message is comprised of a prescribed number of identical power control bits [0069].

Regarding to claim 18, Rezaiifar teaches a packet data transmission method of a mobile station in a mobile communication system supporting packet data transmission, comprising the steps of: gating on/off data rate request (DRQ) transmitted to a base station, after completion of packet data communication [0119] (see Figure 8B and 9B); and resuming reverse transmission of the DRQ, upon receipt of a DRQ message for requesting transmission of the DRQ from the base station in a state where there is no data communication between the base station and the mobile station [0119] (see Figure 8B and 9B).

Regarding to claim 19, Rezaiifar teaches upon resumption of the reverse transmission, transmission power of the reverse signal is increased little by little from predetermined initial access power for a prescribed time [0069].

Regarding to claim 20, Rezaiifar teaches controlling transmission power of the DRQ according to a power control bit received from the base station, upon receipt of an ACK message responding to the reverse transmission from the base station [0069].

Regarding to claim 23, Rezaiifar teaches the DRQ message is comprised of a prescribed number of identical power control bits [0069].

Regarding to claim 24, Rezaiifar teaches the ACK message is comprised of a prescribed number of identical power control bits [0069].

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claim 14, 15, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rezaiifar et al. in view of Padovani et al. (US Pub. 2003/0142656).

Regarding to claim 14, Rezaiifar teaches packet data transmission method of a base station in a state where there is no data communication between the base station and a mobile station, comprising the steps of: transmitting a data rate request (DRQ) message to the mobile station to transmit the packet data [0119] (see Figure 9B); transmitting an ACK (ACKnowledgement) message to the mobile station for a prescribed time period in response to a detection ACK signal of the DRQ message from the mobile station [0119] (see Figure 9B); and transmitting the packet data along with a power control signal after transmitting the ACK message [0119] (see Figure 9B). Rezaiifar, however, does not teach dropping the packet data to be transmitted, upon failure to receive a detection ACK signal of the DRQ message from the mobile station. Padovani teaches dropping the packet data to be transmitted, upon failure to receive a detection ACK signal of the DRQ message from the mobile station [0073]. It would have been obvious to one skilled in the

art to modify Rezaiifar to drop the packet data to be transmitted, upon failure to receive a detection ACK signal of the DRQ message from the mobile station as taught by Padovani in order to save power if the mobile station is occupied and cannot immediately respond.

Regarding to claim 15, Padovani teaches retransmitting the DRQ message after suspending transmission of the DRQ message for a prescribed time, upon failure to receive a detection ACK signal of the DRQ message from the mobile station; and dropping the packet data to be transmitted, in case of failing to receive the detection ACK signal until a number of transmissions of the DRQ reaches a prescribed number [0073].

Regarding to claim 21 and 22, Rezaiifar in view of Padovani teaches using acknowledgement in dropping and retransmitting packet communication from the base station to the mobile as shown above in the rejection of claim 14 and 15. Rezaiifar in view of Padovani, however, does not teach using acknowledgement in dropping and retransmitting packet communication from the mobile to the base station. It would have been obvious to one skilled in the art to modify Rezaiifar in view of Padovani to use acknowledgement in dropping and retransmitting packet communication from the mobile to the base station in order to save power if the base station is occupied and cannot immediately respond.

Response to Arguments

8. Applicant's arguments filed 02/14/2008 have been fully considered but they are not persuasive. In response to page 7, the applicant directed the examiner to the response dated August 30, 2007 (received on September 4, 2007) for the drawing objection. The

cited figures did not have the elements objected shown. Those elements should be shown in the drawings. In response to page 8, the applicant did not respond to the last two lines of the specification objection. In response to page 8, the applicant did not respond to the claim objection other than just repeating "it is respectfully asserted that the foregoing amendments and arguments obviated the claim objection". In response to page 9, the applicant argues that Rezaiifar does not teach the DRQ message generated by a controller in a base station and Rezaiifar rather teaches DRQ transmitted by the remote station. The examiner agrees that Rezaiifar teaches DRQ transmitted by the remote station [0019]. However, DRQ and DRQ message are two different signals. DRQ is transmitted by the mobile station (Figure 7) and DRQ messages are transmitted by the base station (Specification page 14 line 23-24). Rezaiifar teaches the DRQ message (paging message in [0119]) generated by a controller in a base station. In response to page 9-10, the applicant further argues that paging message in Rezaiifar is not the DRQ messages in the claim. The claims recites DRQ message as a message for requesting DRQ (claim 1 line 3). Rezaiifar teaches DRQ transmitted by the remote station [0019] and also teaches the base station initiating service negotiation by transmitting a paging message (Figure 9B). Therefore, the examiner contends that Rezaiifar teaches a message for requesting DRQ (paging message in [0119]). In response to page 10-11, the applicant further argues that Rezaiifar does not teach any message for intermittently transmitting DRQ. The limitation is not recited in the claim.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CLEMENCE HAN whose telephone number is (571)272-3158. The examiner can normally be reached on Monday-Friday 9 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on (571) 272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. H./
Primary Examiner, Art Unit 2616

/FIRMIN BACKER/
Supervisory Patent Examiner, Art Unit 2616